

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. **(Currently Amended)** In a Java computing environment, a method of invoking a native method written in a programming language other than Java, said method comprising:
providing a reference to one or more Java parameters on a Java execution stack, said one or more Java parameters being parameters associated with said native method; **and**
generating one or more native parameters based on said reference; and
invoking said native method with said one or more native parameters.
~~accessing at least one of said one or more Java parameters based on said reference.~~
2. (Original) A method as recited in claim 1, wherein said reference is provided to a set of macro instructions.
3. (Original) A method as recited in claim 2, wherein said set of macro instructions and said native method are written in the same programming language.
4. (Original) A method as recited in claim 3, wherein said set of macro instructions and said native method are written in C programming language.
5. (Original) A method as recited in claim 1, wherein said method further comprises:
converting said at least one Java parameter to at least one native parameter suitable for use by said native method.
6. (Original) A method as recited in claim 5, wherein said converting is performed by a set of macro instructions.
7. (Original) A method as recited in claim 6, wherein said set of macro instructions and said native method are written in C or C++ programming languages.
8. (Original) A method as recited in claim 6, wherein said method further comprises:

placing said at least one native parameter on a native execution stack; and
executing said native method using said at least one native parameter.

9. (Original) A method as recited in claim 1, wherein said at least one Java parameter is a Java reference object or a Java primitive data type.

10. (Original) In a Java computing environment, a method of invoking a native method written in a native programming language other than Java, said method comprising:

providing a reference to one or more Java parameters on a Java execution stack, said one or more Java parameters being parameters associated with said native method;

accessing at least one of said one or more Java parameters based on said reference;

converting said at least one Java parameter to a native parameter suitable for said native programming language; and

wherein said converting is performed by a set of macro instructions written in said native programming language.

11. (Original) A method as recited in claim 10, wherein said native programming language is the C programming language.

12. (Original) A method as recited in claim 11,

wherein said reference is provided directly to said set of macros; and

wherein said set of macros operate to insulate the native method from the internals of a virtual machine that is invoking said native method.

13. (Original) A method as recited in claim 10, wherein said method further comprises:

placing said at least one native parameter on a native execution stack; and

executing said native method using said at least one native parameter.

14. (Original) A method as recited in claim 10, wherein said at least one Java parameter is a Java object or a Java primitive data type.

15. (Canceled)

16. (Canceled)

17. (Canceled)

18. (Canceled)

19. (Canceled)

20. (Canceled)

21. (New) A computer readable medium including computer program code for invoking a native method written in a programming language other than Java, said computer readable medium comprising:

computer program code for providing a reference to one or more Java parameters on a Java execution stack, said one or more Java parameters being parameters associated with said native method;

computer program code for generating one or more native parameters based on said reference; and

computer program code for invoking said native method with said one or more native parameters.

22. (New) A computer readable medium as recited in claim 21, wherein said reference is provided to a set of macro instructions and said set of macro instructions when executed convert at least one Java parameter to at least one native parameter.

23. (New) A computer readable medium as recited in claim 21, wherein said computer readable medium further comprises:

computer program code for converting at least one Java parameter to at least one native parameter.

24. (New) A computer system for invoking a native method written in a programming language other than Java programming language, wherein said computer system comprises:

memory;

a Java execution stack;

at least one Central Processing Unit (CPU), wherein said at least Central Processing Unit operates to:

process a reference to one or more Java parameters that are stored on said Java execution stack, said one or more Java parameters being parameters associated with said native method;
generate one or more native parameters based on said reference; and
invoke said native method with said one or more native parameters.

25. (New) A computer system as recited in claim 24, wherein said at least Central Processing Unit further operates to:

convert at least one of said one or more Java parameters to at least one native parameter.

26. (New) A computer system as recited in claim 25,

wherein said computer system further comprises a native execution stack, and
wherein said at least Central Processing Unit further operates to process said at least one native parameter on said native stack when said native method is invoked.
